

## WE CLAIM:

1. A rheometer for examining a sample, the rheometer comprising:
  - an upper measuring part;
  - a lower measuring part, said upper and said lower measuring part defining a measuring chamber for receiving the sample, said lower measuring part having a support part which carries the sample and which can be heated through application of an electrical voltage; and
  - means for effecting relative motion between said upper and said lower measuring parts.
2. The rheometer of claim 1, wherein said relative motion means effect a relative turning or pivoting between said upper and said lower measuring parts.
3. The rheometer of claim 1, wherein said support part consists essentially of an electrically conducting material.
4. The rheometer of claim 3, wherein said support part consists essentially of electrically conducting glass.
5. The rheometer of claim 1, wherein said support part has an electrically conducting medium.
6. The rheometer of claim 5, wherein said electrically conducting medium is embedded in or disposed on said support part.

7. The rheometer of claim 1, wherein at least a portion of said support part is transparent.
8. The rheometer of claim 7, further comprising a camera disposed below said transparent portion of said support part for observing the sample.
9. The rheometer of claim 1, wherein said support part is plate-shaped or cup-shaped.
10. The rheometer of claim 1, wherein said support part is coupled to a cooling device.
11. The rheometer of claim 10, wherein said support part is supported on said cooling device at a side of said support part facing away from the sample.
12. The rheometer of claim 10, wherein said cooling device has an opening through which the sample can be observed via a camera.
13. The rheometer of claim 1, further comprising a processing unit for determining a temperature of the sample in dependence on a resistance of said support part.
14. The rheometer of claim 1, wherein said upper measuring part can be heated through application of an electrical voltage.

15. The rheometer of claim 1, further comprising a hood-like cover which at least partially surrounds said upper measuring part and the sample, wherein said hood-like cover can be heated through application of an electrical voltage.
16. The rheometer of claim 15, wherein said hood-like cover consists essentially of glass which is electrically conducting or is provided with an electrically conducting medium.